

**Stewart M. McCauley**  
**Department of Communication Sciences and Disorders**  
Curriculum Vitae as of Aug. 2021

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## EDUCATION AND PROFESSIONAL HISTORY

### Higher Education

2016                    **PhD**, Psychology, Cornell University  
**Supporting Areas / Minor:** Cognitive Science

2013                    **MA**, Psychology, Cornell University

2009                    **MA**, Linguistics and Cognitive Science, University of Delaware

2007                    **BA**, Archaeological Studies, English (second major), University of Texas at Austin  
**Supporting Areas / Minor:** Anthropology

### Professional and Academic Positions

2019 - Present        **Assistant Professor**, Department of Communication Sciences and Disorders, University of Iowa

2016-2019            **Post-doctoral Researcher**, Department of Psychological Sciences, University of Liverpool

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## TEACHING

### Courses Taught at the University of Iowa

Term	Course#	Title	Ten-Day Enrollment	Final Enrollment
Fall 2021	CSD: 3116	Basic Neuroscience for Speech and Hearing	83	TBD
Fall 2021	CSD: 4145	Developmental Language Disorders	77	TBD
Fall 2021	CSD: 4098	Honors Thesis	1	TBD
Fall 2021	CSD: 3993	Research Practicum	8	TBD
Spring 2021	CSD: 1015	Introduction to Speech and Hearing Processes and Disorders	55	55
Spring 2021	CSD: 4098	Honors Thesis	1	1
Fall 2020	CSD: 3116	Basic Neuroscience for Speech and Hearing	90	90
Fall 2020	CSD: 4145	Developmental Language Disorders	74	73
Spring 2020	CSD: 1015	Introduction to Speech and Hearing Processes and Disorders	83	82
Fall 2019	CSD: 3116	Basic Neuroscience for Speech and Hearing	76	74
Fall 2019	CSD: 4145	Developmental Lang. Disorders	93	93

**Innovations in Teaching** (Other Teaching Contributions)

*Creation of an open-source textbook for neuroscience instruction in CSD*

2020-Present      **UI Libraries OpenHawks Program Open Educational Resources Course Redesign Award Recipient**

**Student Mentoring Summary**

Spring 2021 - Present      Honors thesis mentor for seniors in CSD; # students: 1

**SCHOLARSHIP**

**Publications**

CLAS \* System \* = Senior Author, Major Contribution, \*\* = Secondary Contribution \*\*\* = Equal Contribution, \*\*\*\* = Minor Contribution

**Refereed Articles**

- \*      **McCauley, S.M.**, Bannard, C., Theakston, A., Davis, M., Cameron-Faulkner, T., & Ambridge, B. (in press). Multiword units lead to errors of commission in children’s spontaneous production: “\*What corpus data can tell us?” *Developmental Science*.
- \*\*\*\*      Ambridge, B., Doherty, L., Maitreyee, R., Tatsumi, T., Zicherman, S., Kawakami, A. ... **McCauley, S.** ... Nair, R. (2021). Testing a computational model of causative overgeneralizations: Child judgment and production data from English, Hebrew, Hindi, Japanese and K’iche. *Open Research Europe, 1*, 1.
- \*\*\*\*      Ambridge, B., Tatsumi, T., Doherty, L., Maitreyee, R., Bannard, C., Samanta, S., **McCauley, S.M.** ... Mendoza, M.J. (2020). The crosslinguistic acquisition of sentence structure: Computational modeling and grammaticality judgments from adult and child speakers of English, Japanese, Hindi, Hebrew and K’iche’. *Cognition, 202*, 104310.
- \*      **McCauley, S.M.** (2020). Towards an integrated, single-system account of language development as skill learning. *Journal of Communication Disorders, 83*, 105942.
- \*\*\*      Jolsvai, H., **McCauley, S.M.**, & Christiansen, M.H. (2020). Meaningfulness beats frequency in multiword chunk processing. *Cognitive Science, 44*, e12885.
- \*\*      Isbilen, E.I., **McCauley, S.M.**, Kidd, E., & Christiansen, M.H. (2020). Statistically-induced chunking recall: A memory-based approach to statistical learning. *Cognitive Science, 44*, e12848.
- \*      **McCauley, S.M.** & Christiansen, M.H. (2019). Modeling children’s early linguistic productivity through the automatic discovery and use of lexically-based frames. In A. Goel, C. Seifert, & C. Freksa (Eds.) *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- \*      **McCauley, S.M.**, Bannard, C., Theakston, A., Davis, M., Cameron-Faulkner, T., & Ambridge, B. (2019). Multiword units predict non-inversion errors in children’s wh-questions: “What corpus data can tell us?” In A. Goel, C. Seifert, & C. Freksa (Eds.) *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- \*      **McCauley, S.M.** & Christiansen, M.H. (2019). Language learning as language use: A cross-linguistic model of child language development. *Psychological Review, 126*, 1-51.
- \*\*      Trecca, F., **McCauley, S.M.**, Andersen, S.R., Bleses, D., Basbøll, H., Højen, A., Madsen, T., Ribu, I.S.B., & Christiansen, M.H. (2019). Segmentation of highly vocalic speech via statistical learning: Initial results from Danish, Norwegian, and English. *Language Learning, 69*, 143-176.

- \* **McCauley, S.M.** & Christiansen, M.H. (2017). Computational investigations of multiword chunks in language learning. *Topics in Cognitive Science*, 9, 637-652.
- \* **McCauley, S.M.**, Isbilen, E.S., & Christiansen, M.H. (2017). Chunking ability shapes sentence processing at multiple levels of abstraction. In G. Gunzelmann, A. Howes, T. Tenbrink, & E.J. Davelaar (Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society* (pp. 2681-2686). Austin, TX: Cognitive Science Society.
- \*\* Isbilen, E.S., **McCauley, S.M.**, Kidd, E., & Christiansen, M.H. (2017). Testing statistical learning implicitly: A novel chunk-based measure of statistical learning. In G. Gunzelmann, A. Howes, T. Tenbrink, & E.J. Davelaar (Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society* (pp. 564-569). Austin, TX: Cognitive Science Society.
- \*\*\* Arnon, I., **McCauley, S.M.**, & Christiansen, M.H. (2017). Digging up the building blocks of language: Age-of-acquisition effects for multiword phrases. *Journal of Memory and Language*, 92, 265-280.
- \*\*\* Chater, N., **McCauley, S.M.**, & Christiansen, M.H. (2016). Language as skill: Intertwining comprehension and production. *Journal of Memory and Language*, 89, 244-254.
- \* **McCauley, S.M.** & Christiansen, M.H. (2015). Chunking ability predicts on-line sentence processing. In D.C. Noelle & R. Dale (Eds.), *Proceedings of the 37th Annual Conference of the Cognitive Science Society* (pp. 1553-1558). Austin, TX: Cognitive Science Society.
- \* **McCauley, S.M.** & Christiansen, M.H. (2014). Acquiring formulaic language: A computational model. *The Mental Lexicon*, 9, 419-436.
- \* **McCauley, S.M.** & Christiansen, M.H. (2014). Prospects for usage-based computational models of grammatical development: Argument structure and semantic roles. *Wiley Interdisciplinary Reviews: Cognitive Science*, 5, 489-499.
- \* **McCauley, S.M.** & Christiansen, M.H. (2014). Reappraising lexical specificity in children's early syntactic combinations. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society* (pp. 1000-1005). Austin, TX: Cognitive Science Society.
- \*\* Ramscar, M., Dye, M., & **McCauley, S.M.** (2013). Expectation and error distribution in learning: The curious absence of “mouses” in adult speech. *Language*, 89, 760-793.
- \*\*\* Jolsvai, H., **McCauley, S.M.**, & Christiansen, M.H. (2013). Meaning overrides frequency in idiomatic and compositional multiword chunks. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- \* **McCauley, S.M.** & Christiansen, M.H. (2013). Towards a unified account of comprehension and production in language development. *Behavioral and Brain Sciences*, 36, 366-367.
- \* **McCauley, S.M.**, Hestvik, A., & Vogel, I. (2013). Perception and bias in the processing of compound versus phrasal stress: Evidence from event-related brain potentials. *Language and Speech*, 56, 23-44.
- \* **McCauley, S.M.** & Christiansen, M. H. (2011). Learning simple statistics for language comprehension and production: The CAPPUCINO model. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 1619-1624). Austin,

TX: Cognitive Science Society.

### **Refereed Book Chapters**

- \* **McCauley, S.M.**, Monaghan, P., & Christiansen, M.H. (2015). Language emergence in development: A computational perspective. In B. MacWhinney & W. O'Grady (Eds.), *Handbook of Language Emergence*. Hoboken, NJ: Wiley-Blackwell.

### **Publications In Progress**

- Ambridge, B., **McCauley, S.M.**, Bannard, C., Davis, M., Cameron-Faulkner, T., Gummery, A., & Theakston, A. (submitted). *Uninversions in English-speaking children's wh-questions: (Don't) blame it on the bigrams*.
- McCauley, S.M.**, Hendrickson, K., Yoon, S.O., & Tomblin, J.B. (in preparation). *Writing outcomes and the simple view of reading*.
- McCauley, S.M.**, & Christiansen, M.H. (in preparation). *Chunk-based discovery and use of lexical frames in development*.
- McCauley, S.M.**, Frinsel, F. & Christiansen, M.H. (in preparation). *Individual differences in experience-based chunking predict complex sentence processing*.
- Davis, M., **McCauley, S.M.**, Cameron-Faulkner, T., & Theakston, A. (in preparation). *Tag question development in children learning British English*.

### **Areas of Research Interest**

Language learning; language processing; computational models of language; cognitive neuroscience of language; developmental language disorder (DLD)

### **Grants and Contracts**

#### ***Extramural Proposals (Under Review)***

- 2021 NIH R01 (as Co-I): *Language outcomes and processing mechanisms of adults with developmental language disorder*

#### ***Extramural Proposals (Not Funded)***

- 2021 NIH R01 (as Co-I): *Predicting first and second language outcomes in early L2 learners from the longitudinal FinnBrain cohort*
- 2020 NIH R03 (as PI): *Modeling the predictors of early language development in the FinnBrain cohort*
- 2020 NIH R21 (as Co-I): *Insights into sequential bilingualism: Measuring L1 and L2 language proficiency and literacy in 9-10-year-old Finnish-English bilinguals from the FinnBrain cohort*

#### ***Intramural Proposals (Funded)***

- 2020-2021 Office of Teaching, Learning, & Technology – Open Educational Resources Course Redesign Award: \$2,000  
UI Libraries OpenHawks Program – Open Educational Resources Course Redesign Award: \$2,000

### **Invited Lectures and Conference Presentations**

#### ***Invited Lectures***

- “*Sentence Production*,” Psychology of Language, University of Iowa, Spring, 2020, 2021
- “*Modeling Language Acquisition*,” Psychology of Language, Cornell University, Spring, 2015
- “*Artificial Neural Networks*,” Psychology of Language, Cornell University, Spring, 2015

- “*Language Acquisition*,” Cognitive Psychology, Cornell University, Spring, 2012  
 “*Computational Models of Language Acquisition*,” Psychology of Language, Cornell University, Spring, 2011

### **Invited Presentations**

- Isbilen, E.S., **McCauley, S.M.**, Kidd, E., & Christiansen, M.H. (2017, November). *Statistically-Induced Chunking: A Novel Memory-Based Measure of Statistical Learning*. Invited talk at the McDonnell Foundation Workshop on The Future of Statistical Learning, the Haskins Labs, New Haven, CT.
- M.H. Christiansen & **S.M. McCauley** (2013, April). *Language Acquisition is Learning to Process: Theoretical Considerations and Computational Modeling*. Invited talk at the workshop: What can we do with 500-billion words? Indiana University, Bloomington, IN.

### **Conference Presentations**

- McCauley, S.M.**, Hendrickson, K., Yoon, S., & Tomblin, J.B. (2020, November). *Direct vs. Indirect Effects of Early Language Abilities on Literacy Outcomes*. Talk accepted at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA (Convention canceled).
- Hendrickson, K., Yoon, S., **McCauley, S.M.**, & Tomblin, J.B. (2020, November). *The Role of Language and Nonverbal Cognitive Abilities in Reading Fluency in the School-age Years*. Poster accepted at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA (Convention canceled).
- McCauley, S.M.**, Bannard, C., Theakston, A., Davis, M., Cameron-Faulkner, T., & Ambridge, B. (2019, November). *Multiword Units Predict Children’s Non-inversion Errors in Wh- Question Formation*. Talk presented at the 44th Annual Boston University Conference on Language Development (BUCLD), Boston, MA.
- Ambridge, B., Doherty, L., Maitreyee, R., Bannard, C., **McCauley, S.M.**, Kawakami, A., Samanta, S., Arnon, I., Berman, R., Zicherman, S., Bekman, D., Efrati, A., Narasimhan, B., Nair, R.N., Sharma, D.M., Fukumura, K., Tatsumi, T., Campbell, S., Saito, M., Pye, C., Pedro, P.M., Pixabaj, S.F.C., Pelíz, M.M. & Mendoza, M.J. (2019, November). *Disappearing Causative Overgeneralization Errors Across Five Languages: The Roles of Verb Semantics and Statistical Preemption*. Poster presented at the 44<sup>th</sup> Annual Boston University Conference on Language Development (BUCLD), Boston, MA.
- McCauley, S.M.**, Bannard, C., Theakston, A., Davis, M., Cameron-Faulkner, T., & Ambridge, B. (2019, July). *Multiword Units Predict Non-inversion Errors in Children’s Wh- Questions: “What Corpus Data Can Tell Us?”* Talk presented at the 41st Annual Conference of the Cognitive Science Society, Montreal, Canada.
- McCauley, S.M.** & Christiansen, M.H. (2019, July). *Modeling Children’s Early Linguistic Productivity Through the Automatic Discovery and Use of Lexically-based Frames*. Talk presented at the 41st Annual Conference of the Cognitive Science Society, Montreal, Canada.
- McCauley, S.M.**, Bannard, C., Theakston, A., Davis, M., Cameron-Faulkner, T., & Ambridge, B. (2019, July). *Multiword Units Predict Non-inversion Errors in Children’s Wh-questions: “What Corpus Data Can Tell Us?”* Talk presented at the Child Language Symposium, Sheffield, United Kingdom.
- McCauley, S.M.**, & Christiansen, M.H. (2017, September). *Modeling the Role of Predictive vs. Recognition-based Processing in Acquisition*. Talk presented at the 23<sup>rd</sup> Architectures and Mechanisms of Language Processing (AMLAP) Conference, Lancaster, United Kingdom.

- McCauley, S.M.**, Isbilen, E.S., & Christiansen, M.H. (2017, September). *Individual Differences in Chunking Ability Predict Sentence Processing at Multiple Levels of Abstraction*. Poster presented at the 23<sup>rd</sup> Architectures and Mechanisms of Language Processing (AMLaP) Conference, Lancaster, United Kingdom.
- Isbilen, E.S, **McCauley, S.M.**, Kidd, E., & Christiansen, M.H. (2017, September). *Statistical Learning as Chunking: A Novel Memory-Based Measure of Statistical Learning*. Poster presented at the 23<sup>rd</sup> Architectures and Mechanisms of Language Processing (AMLaP) Conference, Lancaster, United Kingdom.
- McCauley, S.M.**, Isbilen, E.S., & Christiansen, M.H. (2017, July). *Chunking Ability Shapes Sentence Processing at Multiple Levels of Abstraction*. Poster presented at the 39th Annual Conference of the Cognitive Science Society, London, United Kingdom.
- Isbilen, E.S, **McCauley, S.M.**, Kidd, E., & Christiansen, M.H. (2017, July). *Testing Statistical Learning Implicitly: A Novel Chunk-Based Measure of Statistical Learning*. Talk presented at the 39th Annual Conference of the Cognitive Science Society, London, United Kingdom.
- Arnon, I., **McCauley, S.M.** & Christiansen, M.H. (2017, July). *Age-of-acquisition Effects for Multiword Phrases*. Poster presented at the 14<sup>th</sup> International Congress for the Study of Child Language (IASCL), Lyon, France.
- Arnon, I., **McCauley, S.M.** & Christiansen, M.H. (2017, March). *Digging Up the Building Blocks of Language: Age-of-acquisition Effects for Multiword Phrases*. Poster presented at the 30<sup>th</sup> Annual CUNY Conference on Human Sentence Processing, MIT, Cambridge, MA.
- Isbilen, E.S, **McCauley, S.M.**, Kidd, E., & Christiansen, M.H. (2016, June). *Testing Implicit Statistical Learning Implicitly*. Poster presented at the Fifth Implicit Learning Seminar, Lancaster University, U.K.
- McCauley, S.M.** & Christiansen, M.H. (2015, November). *Individual Differences in Experience-based Chunking Predict Online Language Processing*. Talk delivered at the 56th Annual Meeting of the Psychonomic Society, Chicago, IL.
- Arnon, I., **McCauley, S.M.** & Christiansen, M.H. (2015, November). *Digging Up the Building Blocks of Language: Age-of-acquisition Effects for Multiword Phrases*. Poster presented at the 40th Boston University Conference on Language Development, Boston, MA.
- McCauley, S.M.** & Christiansen, M.H. (2015, July). *Chunking Ability Predicts On-line Sentence Processing*. Talk delivered at the 37th Annual Conference of the Cognitive Science Society, Pasadena, CA.
- Trecca, F., Callaway, F., **McCauley, S.M.**, & Christiansen, M.H (2015, June). *Phonology Affects Statistical Learning in Artificial Speech Segmentation: Insights From Behavioral Experiments and Computational Modeling*. Poster presented at the International Conference on Interdisciplinary Advances in Statistical Learning, San Sebastian, Spain.
- Jolsvai, H., **McCauley, S.M.**, & Christiansen, M.H. (2014, November). *Evidence Against Separate Processing of Idiomatic and Compositional Phrases*. Talk delivered at the 55th Annual Meeting of the Psychonomic Society, Long Beach, CA.
- McCauley, S.M.**, & Christiansen, M.H. (2014, September). *On-line Distributional Learning in Language Development*. Talk presented at the workshop “Modeling the Mechanisms: Challenges and Aims for Usage-based Computational Models of Grammatical Development” at the 8th International Conference on Construction Grammar (ICCG8), University of Osnabrück, Germany.
- McCauley, S.M.**, & Christiansen, M.H. (2014, July). *Reappraising Lexical Specificity in Children's Early Syntactic Combinations*. Talk delivered at the 36<sup>th</sup> Annual Conference of the Cognitive Science Society, Quebec City, Canada.

Jolsvai, H., **McCauley, S.M.**, & Christiansen, M.H. (2013, August). *Meaning Overrides Frequency in Idiomatic and Compositional Multiword Chunks*. Talk delivered at the 35<sup>th</sup> Annual Conference of the Cognitive Science Society, Berlin, Germany.

**McCauley, S.M.** & Christiansen, M.H. (2013, June). *Acquiring Formulaic Language: A Cross-linguistic Model of Children's Comprehension and Production*. Talk presented in the Bridging the Methodological Divide: Cognitive Linguistic and Psycholinguistic Approaches to Formulaic Language theme session at the 12th International Cognitive Linguistics Conference, Edmonton, Canada.

Jolsvai, H., **McCauley, S.M.**, & Christiansen, M.H. (2013, June). *The Relative Importance of Meaning and Frequency in the Processing of Formulaic Expressions*. Talk presented in the Bridging the Methodological Divide: Cognitive Linguistic and Psycholinguistic Approaches to Formulaic Language theme session at the 12th International Cognitive Linguistics Conference, Edmonton, Canada.

**McCauley, S.M.** & Christiansen, M.H. (2012, November). *Language Learning as Language Use: A Computational Model of Children's Comprehension and Production of Language*. Talk delivered at the 53<sup>rd</sup> Annual Meeting of the Psychonomic Society, Minneapolis, MN.

**McCauley, S.M.** & Christiansen, M.H. (2011, July). *Learning Simple Statistics for Language Comprehension and Production: The CAPPUCCINO Model*. Talk delivered at the 33<sup>rd</sup> Annual Conference of the Cognitive Science Society, Boston, MA.

**McCauley, S.M.** & Hestvik, A. (2010, April). *When Prosody Cues Syntactic Structure, Only to be Ignored: An ERP Study of the Compound/Phrasal Stress Distinction in English*. Poster presented at the 23<sup>rd</sup> Annual CUNY Conference on Human Sentence Processing, New York, NY.

**McCauley, S.M.**, Hestvik, A., & Vogel, I. (2010, April). *When Prosodic Perception is Overridden: An ERP Study of the Compound/Phrasal Stress Distinction in English*. Poster presented at the 17<sup>th</sup> Annual Meeting of the Cognitive Neuroscience Society, Montreal, Canada.

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## SERVICE

### Profession

2021	Ad hoc reviewer, <i>Cognitive Science, Psychonomic Bulletin &amp; Review</i>
2020	Ad hoc reviewer, <i>Cognition, Cognitive Science, Language and Speech</i> Committee member, <i>Conference on Computational Natural Language Learning (CoNLL)</i>
2019	Ad hoc reviewer, <i>Cognition, Cognitive Science, Complexity, Language Learning, Psychonomic Bulletin &amp; Review</i>
2017	Ad hoc reviewer, <i>Developmental Science, Frontiers in Psychology, Language Learning</i>
2016	Ad hoc reviewer, <i>Corpora, Language Learning</i>
2015	Ad hoc reviewer, <i>Cognition</i> Committee member, <i>Conference on Computational Natural Language Learning (CoNLL)</i>
2014	Co-organizer of a workshop, <i>Modeling the Mechanisms: Challenges and Aims for Usage-based Computational Models of Grammatical Development</i> , held at the 8th International Conference on Construction Grammar (ICCG8), University of Osnabrück, Germany

**Department**

2021-Present	Director of Undergraduate Studies (DUS)
2021-Present	Chair, Undergraduate Studies Committee
2020-2021	Member, Search Committee (x3), Assistant/Associate Professor Position in Communication Sciences and Disorders
2019-2020	Member, Search Committee, Assistant/Associate Professor Position in Communication Sciences and Disorders
2019-Present	Undergraduate Studies Committee
2019-Present	Graduate Admissions Committee

**College**

2020	Hardin Library Representative for Department of Communication Sciences and Disorders
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